REMARKS

Claims 1-35 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 112, Second Paragraph, Rejection:

The Examiner rejected claims 1-7, 9 and 14 under 35 U.S.C. § 112, second paragraph, as being indefinite in the use of "become a content publisher peer node." Applicants traverse this rejection. However, to expedite prosecution, Applicants have amended claims 1, 3, 9 and 14 to read "…become an additional content publisher peer node…" Thus, Applicants respectfully request removal of the § 112 rejection of claims 1-7, 9 and 14.

The Examiner rejected claim 4 under 35 U.S.C. § 112, second paragraph as being indefinite in the use of "receive a portion of the particular content from a first content publisher peer node that caches the particular content in response to the request." Applicants traverse this rejection. However, to expedite prosecution, Applicants have amended claim 4 to read "in response to the request: receive a portion of the particular content from a first content publisher peer node that caches the particular content; and receive another portion of the particular content from a second content publisher peer node that also caches the particular content." Thus, Applicants respectfully request removal of the § 112 rejection of claim 4.

Section 102(e) Rejection:

The Examiner rejected claims 1, 12, 20, 24, 25, 28 and 33 under 35 U.S.C. § 102(e) as being anticipated by Burbeck et al. (U.S. Publication 2003/0217139) (hereinafter "Burbeck"). Applicants respectfully traverse this rejection for at least the reasons below.

In regard to claim 1, contrary to the Examiner's assertion, Burbeck fails to teach or suggest at least one of the plurality of peer nodes configured as a publisher peer node for a plurality of contents cached on the peer node, wherein each publisher peer node is configured to publish one or more advertisements on the network, wherein each advertisement corresponds to a specific one of the plurality of contents cached on the peer node, and wherein each advertisement includes information for requesting the specific corresponding content.

The Examiner cites Burbeck, paragraph [0023], lines 1-3, in support of the assertion that Burbeck teaches *wherein each publisher peer node is configured to publish two or more advertisements on the network, wherein each advertisement corresponds to one of the one or more contents cached on the peer node*. The citation states (emphasis added):

> Preferably, as each node as it enters the network, it broadcasts a message to advertise (inter alia) what content the node holds.

This broadcast message corresponds to the "alive" message that a node broadcasts to advertise its presence on the network, e.g. at startup time (*see, e.g.,* paragraph [0111]). Thus, Burbeck's nodes send a single "alive" message that 1) advertises the node's presence; and 2) collectively advertises all content the node holds. In contrast, claim 1 recites that each publisher peer node publishes advertisements on the network, and each of the published advertisements corresponds to a specific one of the contents cached on the peer node. Thus, in claim 1 of the instant application, there is a one-to-one correspondence between an advertisement and a specific corresponding content, and each advertisement is published on the network independently. Thus, each content is published independently in claim 1, in contrast to Burbeck in which one "alive" message is broadcast to advertise what content the node holds.

In further regard to claim 1, Burbeck fails to teach or suggest that to publish the one or more advertisements on the network the publisher peer node is configured to send the one or more advertisement to a rendezvous peer node, wherein the rendezvous peer node caches the one or more advertisements. In

Burbeck there is clearly no concept of a rendezvous peer that caches advertisements from a publisher peer.

In further regard to claim 1, contrary to the Examiner's assertion, Burbeck fails to teach or suggest at least a subset of the plurality of peer nodes each configured to: discover published advertisements on the network from the rendezvous peer node by accessing the rendezvous peer node; and request one or more specific contents each corresponding to one of the discovered advertisements in accordance with the information included in the respective advertisements.

> The Examiner cites Burbeck, paragraph [0023], lines 3-5, which reads:
>
> The technique may further comprise: requesting, by a node receiving the broadcast message, a particular content resource from the broadcasting node

Burbeck does not teach discovery of published advertisements on the network from the rendezvous peer node by accessing the rendezvous peer node. Instead, Burbeck teaches that a node broadcasts a message to advertise what content the node holds. Another node may then receive the broadcast "alive" message. Simply receiving a broadcast message is not the same as a node discovering published advertisements from the rendezvous peer node by accessing the rendezvous peer node.

In addition, the citation from Burbeck (paragraph [0023]) and Burbeck in general does not teach that a peer node is configured to request one or more specific contents each corresponding to one of the discovered advertisements in accordance with the information included in the respective advertisements. FIG. 11 of Burbeck is a flowchart of Burbeck's method of a node as requesting content from its peers, and FIG. 11 is described in the specification beginning at paragraph [0124]. Burbeck's method for requesting content is clearly and distinctly different than what is recited in claim 1 of the instant application. In the method, Burbeck does not teach that a node requests a specific content corresponding to a discovered advertisement in accordance with information included in that advertisement. **Specifically, Burbeck does not teach that a node**

requests a specific content from a particular node in accordance with information in an "alive" message, which the Examiner has equated to Applicants' "advertisements", received from that node. Instead, Burbeck teaches in FIG. 11 and the accompanying discussion that a node sends or broadcasts a query request to multiple nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the meta-data from the collection of responding nodes to identify a peer that best satisfies the query. A request for the content is then sent to the identified peer.

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

In regard to claim 12, contrary to the Examiner's assertion, Burbeck does not anticipate an edge content publisher peer node configured to receive the user-requestable contents from the primary content publisher peer node and cache the received contents.

The Examiner cites Burbeck, paragraph [0023], lines 8-10. Paragraph [0023] states:

> The technique may further comprise: requesting, by a node receiving the broadcast message, a particular content resource from the broadcasting node; receiving the requested content resource at the requesting node, along with a reference to the holding node's directed graph for that content resource; storing the received content resource in a local content repository; and storing a local copy of the directed graph for the received content resource.

In the citation, Burbeck is describing a "technique" that comprises a node requesting a particular content resource from a broadcasting node, receiving the particular content resource, and storing the particular content resource. In contrast, claim 12 recites an edge content publisher node receiving a plurality of contents from a primary content

publisher peer node and caching the received plurality of contents. Claim 12 recites receiving a plurality of contents, i.e. more than one content, while the citation from Burbeck is describing requesting and receiving a **single**, particular content resource.

Further in regard to claim 12, Burbeck does not teach or suggest that the edge content publisher peer node is logically closer to the other peer nodes on the network than the primary content publisher. The Examiner asserts "requesting peer caches received content is an edge peer node." However, nowhere does Burbeck state that that the edge content publisher peer node is logically closer to the other peer nodes on the network than the primary content publisher.

In further regard to claim 12, the Examiner's assertion that Burbeck discloses *an edge content publisher peer node configured to…publish the received contents for access by the other peer nodes on the network* is not supported by the Examiner's citation and argument. The Examiner cites paragraph [0118], and asserts "receiving peers further broadcasting advertisements to other peers." Paragraph [0118] describes a node's initial "alive" message being propagated on a network, and "alive" messages from other nodes being responsively returned to the broadcasting node so that the new node (upon entering the network) can "dynamically learn the P2P network topology." The paragraph does not describe, and is not at all directed at or even suggestive of, an edge content publisher peer node receiving contents from a primary content publisher peer node and responsively publishing the received contents.

Thus, for at least the reasons presented above, the rejection of claim 12 is not supported by the cited art and removal thereof is respectfully requested.

In regard to claim 20, the Examiner's assertion that Burbeck discloses *one of the other peer nodes ...publishing the received particular content for access by the other peer nodes on the network* is not supported by the Examiner's citation and argument. The Examiner cites paragraph [0118], and asserts "receiving peers further broadcasting advertisements to other peers." Paragraph [0118] describes a node's initial "alive"

message being propagated on a network, and "alive" messages from other nodes being responsively returned to the broadcasting node so that the new node (upon entering the network) can "dynamically learn the P2P network topology." The paragraph does not describe, and is not at all directed at or even suggestive of, one of the other peer nodes receiving contents from a primary content publisher peer node and responsively publishing the received contents for access by the other peers nodes.

Moreover, nowhere in the citation or elsewhere does Burbeck teach or suggest a node publishing a received *particular* content for access by other peer nodes.

Thus, for at least the reasons presented above, the rejection of claim 20 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 20 also apply to claim 28.

Section 103(a) Rejection:

The Examiner rejected claims 2-5, 8, 9, 13, 14, 18, 19, 21-23 and 29-31 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Leber et al. (U.S. Publication 2003/0233455) (hereinafter "Leber").

In regard to claim 8, the Examiner relies upon Leber to teach *receive the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time.* The Examiner cites Leber, Abstract, Fig. 6, steps 615-640, and paragraph [0098]. Leber discloses, in the Abstract (emphasis added):

> The method involves sending a request for a file to the server computer; receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it; sending a request for the file to a subset of peer clients that yield the fastest download rate; receiving file data back from this subset of peer clients; reassembling the requested file using data sent by the peer clients; and checking the

> integrity and completeness of the reconstructed file by comparing a computed checksum of said reconstructed file with the authentication code.

The above description from Leber's Abstract is consistent with Fig. 6 and the description thereof found in paragraphs [0096] through [0106]. From the above, Leber does not disclose receiving the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network. Instead, Leber discloses receiving file data from a plurality of peer clients. In paragraph [0033], Leber actually states (emphasis added):

> Additionally, the present invention **eliminates** the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers.

From the above, Leber actually appears to teach away from downloading "an entire file" from a single source, and to thus teach away from what Burbeck teaches and from what is recited in claim 8.

Furthermore, Leber's disclosed method **requires** sending a request for a file to a server computer. However, Burbeck's method for requesting content is incompatible with what Leber describes, and does not employ sending a request to a server at any point. In his method, Burbeck does not teach that a node sends a request for a file to a server computer, receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it. Instead, Burbeck teaches in FIG. 11 and the accompanying discussion that a node must send or broadcast a query request to multiple nodes or peers and waits for response messages to the query message (paragraphs [0124] – [0130]). The query request does not request the content, but instead requests nodes to respond that may be able to satisfy the query. The requesting node then processes meta-data from the response messages (paragraph [0131]), after which a "user" evaluates the meta-data from the collection of responding nodes to identify a single peer that best satisfies the query. A request for the content is then sent to the identified peer.

Furthermore, Burbeck discloses, in paragraph [0138], "In addition, the traversal path will be extended to include the current node as the latest target node in the directed graph (that is, by creating a new <arc> element of the form shown at 735 in FIG. 7)." Burbeck, as previously mentioned, discloses a directed graph for tracking the traversal of content resources across nodes. It is not at all clear how Leber's system and a method for the transfer of multiple parts of a file from a plurality of peer client computers would or could be combined with Burbeck's system while maintaining Burbeck's disclosed elements, e.g. the directed graph for tracking the traversal of content resources across nodes.

Furthermore, the Examiner has not stated a proper reason to combine the teachings of the cited art. The Examiner asserts that it would have been obvious to combine the teachings of Burbeck with the teachings of Leber "to provide peer-to-peer services from the peer where the service is available with the best QoS in order to save unnecessary long distance communications costs." The Examiner's reason is not found in either of the cited references, nor in any other evidence of record. The Examiner's reason is not supported by any evidence of record and can thus only be found in hindsight. **Moreover, the references actually teach away from their combination.** First, Leber states that Leber's invention "**eliminates** the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers," while Burbeck's system, e.g. the directed graph for tracking the traversal of content resources across nodes, appears to rely on a content resource moving from just one node to another node. In addition, Leber's system relies on a server computer in requesting content, while Burbeck's system clearly and purposefully does not rely on a server computer system in requesting content. "It is improper to combine references where the references teach away from their combination." *In re Grasselli*, 218 USPQ 769, 779 (Fed. Cir. 1983). In addition, combining Leber with Burbeck would appear to make Burbeck's "Methods, systems, and computer program products for tracking content in a transient peer-to-peer networking environment" unworkable as disclosed and intended. "If proposed modification would render the prior art invention being modified unsatisfactory

for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Furthermore, combining Leber with Burbeck would appear to drastically change the principle of operation of Burbeck's disclosed system. "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious." *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Thus, one of ordinary skill would not have combined the teachings of Burbeck with the teachings of Leber in the manner proposed by the Examiner. Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness.

Thus, for at least the reasons presented above, the rejection of claim 8 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 8 also apply to claim 18.

The Examiner rejected claims 6, 7, 16, 17, 26, 27, 34 and 35 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Lehikoinen et al. (U.S. Publication 2004/0260701) (hereinafter "Lehikoinen"), claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck and Leber in view of Lehikoinen, and claims 15, 24 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Burbeck in view of Saulpaugh et al. (U.S. Publication 2004/0122903) (hereinafter "Saulpaugh"). Since the rejection has been shown to be unsupported for the independent claims, a further discussion of these rejections is not necessary at this time.

Applicants also assert that the rejection of numerous ones of the dependent claims is further unsupported by the cited art. However, since the rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-08300/RCK.

Respectfully submitted,

/Robert C. Kowert/
Robert C. Kowert, Reg. #39,255
Attorney for Applicants

Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C.
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8850

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